

ABSTRACT

FOUR-MODE STABILIZED SOLID-STATE GYROLASER WITHOUT BLIND REGION

The invention concerns solid-state gyrolasers used to measure rotation speeds or relative angular positions. This type of equipment is used, in particular, in aeronautical applications.

10 The purpose of the invention is to complete the optic devices required to control the instability of ring-shaped solid-state lasers using specific optic devices that eliminate the blind region without adding a measurement bias. In this way, a "fully optic" solid-state laser is obtained, without moving parts, stable, and without blind region.

15 These devices comprise in particular polarization separation optical devices, reciprocal and nonreciprocal optical rotators arranged so that four linearly polarized optical modes travel in the cavity at sufficiently different frequencies to avoid mode locking.

20 FIGURE 1

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